

# TIW<sup>®</sup> Conventional Liner Hanger Systems

## Proven to Improve Circulation, Displacement Efficiency and Cement Bonding

TIW has been designing specialized tools for the oil and gas industry for nearly a century. Today, our commitment to innovation, quality and reliability is stronger than ever. We offer a complete line of liner hanger systems designed to work in every well condition.

TIW Hydraulic Liner Hanger Systems are designed to meet the challenges of offshore oil wells, onshore wells that are extremely deep or high-pressure, high-temperature (HPHT) wells. These systems provide better circulation, and improve displacement efficiency and cement bonding.

Cost-effective TIW Mechanical Liner Hanger Systems, designed for vertical and low-angle wells both onshore and offshore, provide superior performance and dependability.

The product portfolio includes liner packers, liner hangers, setting tools and accessories, surface cementing equipment, downhole cementing accessories such as port collars, stage cementing tools and tieback equipment. TIW Liner Hanger Systems are available in hydraulic and mechanical settings and can be configured for rotation, reaming or drilldown capabilities.

TIW Liner Hanger Systems have been used around the world on some of the deepest and most difficult wells, on state-of-the-art horizontal completions, in deepwater applications and where customers simply want the most reliable completion equipment available.



TSP Hydro Hanger



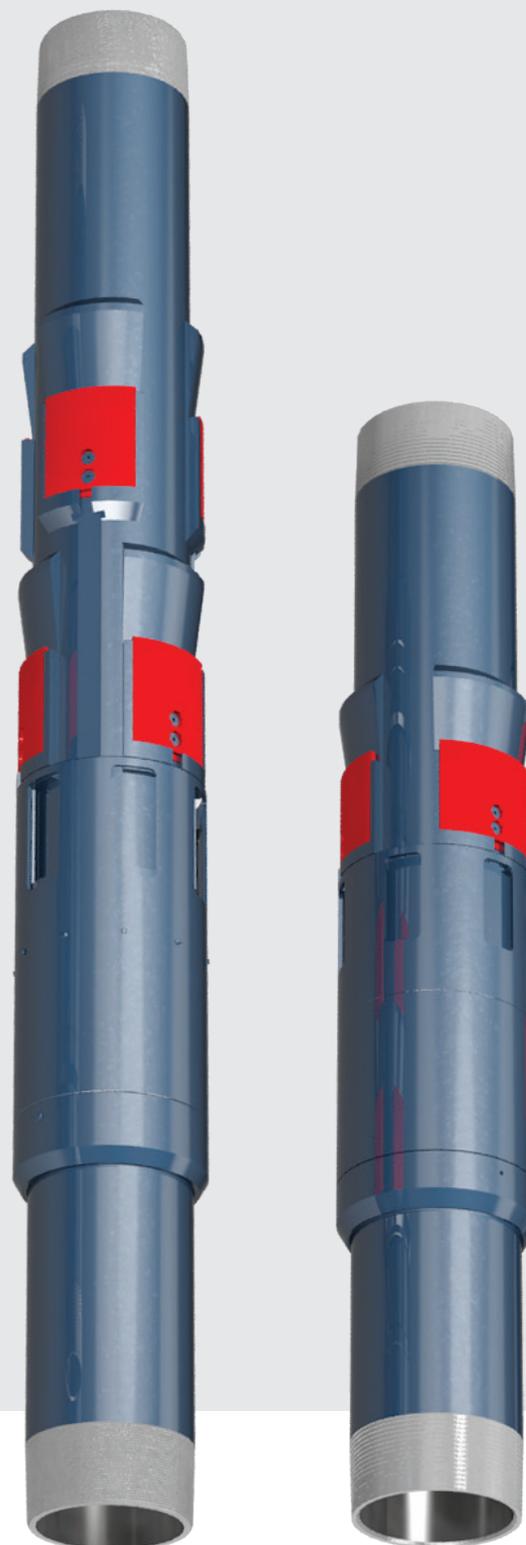
**TIW Liner Packers** run with the liner hanger to provide a positive liner to casing seal at the liner top and reduce the possibility of formation breakdown, fluid losses and gas migration in both low- and high-pressure applications.

**TIW Setting Collars** provide a connection point for the drillstring and setting tool to carry the liner load while running the well. The setting collar usually will contain profiles for the cement bushing and for rotation of the liner assembly and, in most cases, includes a tie-back receptacle for future liner extension.

**TIW Setting Tools and Accessories** are available for a wide range of requirements to carry the liner in the well and optimize liner installation operational requirements.

**TIW Surface Equipment Cement Manifolds** and other surface tools are used to accommodate circulation and cementing operations commonly associated with liner deployment.

**TIW Tie-Back Equipment**, including a variety of tie-back seal nipples and tie-back packers, are available to accommodate liner top extension and remedial operations.



IBTC-DD Hydro-Hanger

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